

Online Versus Onsite Tuition: Advantages and Challenges in Dermatology Education

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ABSTRACT

Background: Dermatology is a branch of medicine that deals with the disorders of the skin and its appendages such as the nails and hair. Dermatology education conventionally has been carried out using visual aids through physical interactions, however advances in technology has aided in successfully making virtual (online) learning possible and the recent global pandemic has fuelled its usage. Virtual learning is becoming a vital means of dermatology education as this can be more cost effective utilizing shared manpower without incurring expenses from travelling. **Aim:** The aim of this review is to look at the advantages and challenges of online learning (virtual vision) as against the conventional method which is onsite (physical presence) learning. **Method:** A combination of literature review and anecdotal experiences would be applied **Results:** Onsite and Online teaching of dermatology has there challenges and advantages. The choice to use any of these methods depends on the availability. Online mode of teaching dermatology is being embraced daily due to wide availability of internet and the shortage of manpower in dermatology. **Conclusion:** It is now being advocated that the two be used in combination (hybrid) to result in better outcomes. This depends on the dermatology institution and the proven suitability in effectively in co-operating dermatology teaching and learning. .

ADVANTAGES AND CHALLENGES OF ONLINE LEARNING

Accessibility

Online learning has provided a very big platform for dermatology education. Dermatology is one area where there is lack of expertise at the different levels of healthcare worldwide but it is worse in developing nations particularly

those in Africa where in some countries there are hardly up to ten dermatologists whether as general practitioners with special interest in dermatology or specialist dermatologist [1,2] These online platforms are open to those with health care background such as medicine, nursing and pharmacy. There are some programmes that are actually specified for medical doctors. The course content including the required textbooks and materials on the online platforms are easily accessible and one doesn't have to go through the rigours of carrying textbooks [3]. These materials are usually updated with the most recent discoveries that might not be seen even in new edition textbooks [3].

Dermatology is a visual specialty that requires you to see, feel and touch. The virtual environment can give access to photographs and videos however the actual physical touch may be limited. This is adjusted for ab nito from the requirements into the program where the students are expected to work in facilities that come in contact with patients hence they can apply the knowledge learnt to the clinical scenarios.

Accommodating

The online learning allows more persons to enroll into courses. Online dermatology programmes make room for more students to be taken from different parts of the globe. The requirements may require having a certificate in the language of learning. The tertiary institution may directly have a website for virtual learning or may engage a private institution consisting of various professionals and workers that may also recruit other professionals from different parts of the globe. The number of students may be divided into groups to reduce the burden on the tutor. The group can also utilize other software applications such as You Tube, Whatsapp and Zoom application for further tutorials and learning. The students are likely to benefit from a variety of tutors and teachers from varying experiences across the world. The students and tutors can also benefit from each other's clinical experiences. In dermatology these can be beneficial; different skin types can be uploaded from the sites which all can learn from. The challenge faced with this, is the language of choice of learning may impair participants. The students have to show proficiency language certificates.

Accreditation

The worry which some students may have about virtual

dermatology learning is the issue of accreditation and acceptance by their places of employment for promotion or if it is acceptable for use to proceed to a higher degree such as Masters or PhD. The bias has reduced with time as more universities are beginning to efficiently embrace and execute dermatology courses on line. The universities are guided by rules and regulations of educational bodies. The students are placed in groups and courses are taken in modules. The Masters course has a 180 credit load which is generally universally accepted. Some schools offer just certificate courses, others only diplomas and others Masters. PhD via online route in dermatology is yet to be popularized. There is PhD by publication route that can accommodate dermatology also. Different dermatology schools have their policies on intake, structure and methods of assessment however they are guided by standards [4].

Career Advancement

Virtual learning allows health care workers to advance in their careers in two ways: the non-interruption of work schedule while learning is provided by virtual learning. There is no need for travel, no need for student or sabbatical leaves. The acquisition of degrees particularly postgraduate dermatological degrees can be an added advantage for those professionals working in the academia and civil service since they can be used in gaining points for promotion.

The actualization of attaining a postgraduate degree in dermatology may not be easy for some because it will require a lot of self-motivation and determination. It would require cutting off some social activities and staying up late at night to meet up deadlines. It may also require visiting dermatology clinics to have a feel of the physical component of what they are learning.

In the course of dermatology virtual lectures the students are also required to share their clinical experiences and this can serve as a booster if they do have or it may serve as a discouraging factor if they don't [5].

Cost of Learning

Online learning reduces the cost of learning on the part of the dermatology learner in the following ways: Reduction in the cost of transportation: this reduction can be seen in two ways. If it is an overseas school cost will be saved from international travel. If it is a local school within the same area

of residence, transportation cost would also be saved from the daily attendance of the student. On the part of the teacher the cost of transportation is also reduced hence reducing the overhead cost of administration. Transportation allowance may not be a part of the enumeration given. Reduced cost also results from having a free library of soft copy text books that the students would read from hence would not need to buy hard copy text books [3,5]. Online studies tend to have fixed fee packages that require payments in bits. You can pay fees in fixed deposits which may not be readily available to those learning on site.

Distant learning is the norm for some courses such as dermatology in developed countries like Australia, Ireland, New Zealand, the United Kingdom, and United States of America. The cost of learning is affected by the exchange rate which turns out to be high for students who choose to study by this route from other countries. Scholarships are not usually given to medical graduates seeking to do dermatology on line. If there are it is few and may be restricted to the citizens of host. Currently the United Kingdom has the highest number of courses in dermatology on line. The current exchange rate from naira to pounds is still very high for those choosing to do dermatology courses from Nigeria. If the student is based in UK the cost may not be felt so much if the dermatology student is working and earning in pounds. In my own experience it was tough to get the fees but having a job in my own country helped me to save. The other challenge may come from assessing foreign exchange and the political challenges of that country that will distort acquisition of foreign exchange as seen in the current times [3,5].

Flexibility

The online lectures give you the option of learning at any time of the day. Those who are engaged with work, family engagements, and those who want to digest knowledge in bits can benefit from online learning [3,5]. The fixed time schedule of physical classes is not applicable, such as fixed dermatology clinics. Video recordings of dermatology cases may be provided to make up for this. The presence of irritant colleagues such bullies and noise makers may not really apply to those acquiring dermatology education since the course is sought by medical professionals guided by ethical principles however physical presence may give rise to issues of transference which is avoided to a greater extent in virtual learning.

The flexibility of time may also be limited in online learning because there are time lines for assignments that have to be submitted within that period usually within a 48 hour period and students may be graded with regards to timing as well as the quality of content of assignments. The course schedule is within a given period and exams may have to be taken with a scheduled period. The issue of different time zones can also affect the carrying out of assignments and submission.

Global Collaborations

Due to the accommodating nature of virtual learning this has given rise to students from different backgrounds in dermatology learning together. Their clinical experiences can be shared and this can give birth to collaborative research works which are usually stimulated from joint simulations shared such as doing group assignments. This academic relationship and interactive global networking can further enhance collaboration at new dermatology innovations and solutions particularly if there is a common problem identified [3,5]. This collaboration has also led to persons from less technological advanced areas to benefit from the knowledge of experts in other advanced nations shared in the virtual platform. This can also be beneficial in dermatology by gaining useful knowledge that can be used in research and publications. Collaborations may arise between student and teacher that help in develop written and research skills which serve as a good form of development for dermatology in carrying out research and making publications which may be multi-centered. This would heighten the interest of the physician, nurse and other health worker to develop their own field with regards to dermatology such as health education in dermatology, nursing skin care, technological innovations and pharmacotherapy.

Technological Bias

Without technology online learning cannot be achieved. The type of technology determines the modus of operating the virtual classroom and the imitation of real time learning. Artificial intelligence may also play more advanced roles in the future such as simulating dermatology educators or acting as pedagogic assistants updating students on lectures. Poor quality skin photographs or micrographs can result from technology failure or less advanced photo technology.

ADVANTAGES AND CHALLENGES OF ONSITE LEARNING

Dynamic Relationships

Physical interactions with patients, transference, bonding, medical marriages, subtle bullying, mastering body language skills, non-verbal communication skills and friendships are occurrences with physical interactions in the typical settings of the classroom. The positives are well appreciated; the negatives such as subtle bullying and negative or sexual transference are not welcomed. It is not typical that gross negativity may be encountered amongst medical peers such as those seeking a postgraduate dermatological education, but this can arise if there are already gender, socio-cultural bias and inter professional rivalry that may exist prior to interaction [6]. This negative associations has been described as incivility [6]. The teacher-student relationship imbalance of power and discomfort in learning may also be experienced more in the traditional classroom teaching [7]. This may be more obvious in African societies where the norm is absolute respect for elders, leaders and teachers hence students may not express their lack of knowledge in a particular aspect of learning in not wanting to displease the teacher.

Group Participation

In dermatology education, group participation can be easily achieved on the spot particularly in viewing pictures or in examining a patient. There could be constant pairing or re-grouping of participants which can be done on a daily basis without any formal written statements. This enhances the social interactions within peers. It can also foster a competitive spirit within students to learn quickly and accurately as they see others striving for excellence. Dermal education is one that requires learning a lot of diseases within a short period of time. Using photographs is an essential tool in learning since physical patients may not be available and accessible all the time. A classroom approach where the educator comes face to face with students helps in on the spot learning and correction of any misinterpretation of the clinical scenario presented [8].

Integrated Approach

An integrated approach is easier to use and switch into on a daily basis, although this may also be achieved on the online learning platform. This may utilize different modes such as short talks, group discussions, video demonstration all within

a short period such as an hour or two enhancing consolidation of the knowledge at once or re-enforcing what was learnt within the classroom. This can be varied on a daily basis within the dermatology posting. This approached has been termed the integrated modular teaching approach [9].

Motivation

Group participation enhances motivation of the learner who may not be naturally self- motivated to learn or carry out assignments. This is one area where onsite learning outweighs online learning [5].

Practical Skills

Dermatology clerkship and diagnosing skin lesions are two areas which have been known to be better appreciated with onsite learning [10]. Poor technical facilities may distort the real appearance of skin lesions and cannot replace the essence of direct visualization of lesions which can be improved upon with the use of dermoscopy [11].

Time Management

While online classes may be more flexible and may help students who are self- motivated to manage their time better since they are expected to engage in the course, this may not prove true for everyone. There are students who engaging onsite learning would be more time friendly since there are timetables and set days of submitting assignments physically [5] Attendance is mandatory in certain settings and scores points in the traditional classroom teaching.

CONCLUSION

Online and onsite learning have their advantages and challenges. It is now being advocated that the two be used in combination (hybrid) to result in better outcomes [12]. The extent to which this would be successful depends on the mode of operation of each dermatology institution and the proven suitability in effectively in co-operating dermatology teaching and learning.

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